

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 03052 St	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/009324	International filing date (<i>day/month/year</i>) 20.08.2004	Priority date (<i>day/month/year</i>) 21.08.2003
International Patent Classification (IPC) or national classification and IPC C08K9/04, C09C3/10, C09C3/08		
Applicant SACHTLEBEN CHEMIE GMBH		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>9</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input checked="" type="checkbox"/> Box No. II Priority <input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-10 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 1-29 _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* _____ received by this Authority on _____
- nos.* _____ received by this Authority on _____
- ☐ the drawings:
- sheets _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. II

Priority

1. ☒ This report has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested:
- ☒ copy of the earlier application whose priority has been claimed (Rule 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 66.7(b)).
2. ☐ This report has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rule 64.1). Thus for the purposes of this report, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application
- ☒ claims Nos. 1-4, 11, 24-26 (in part)

because:

- ☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

- ☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

- ☒ no international search report has been established for said claims Nos. 1-4, 11, 24-26 (in part)

- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

- | | |
|----------------------------|--|
| the written form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |
| the computer readable form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |

- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

- ☐ See Supplemental Box for further details.

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	10-17, 25-29	YES
	Claims	1-9, 18-24	NO
Inventive step (IS)	Claims		YES
	Claims	1-29	NO
Industrial applicability (IA)	Claims	1-29	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
<p>1. This report makes reference to the following documents:</p> <p style="margin-left: 40px;">D1: DE-A-26 46 965</p> <p style="margin-left: 40px;">D2: US-A-5 143 965</p> <p style="margin-left: 40px;">D3: US-A-4 029 513</p> <p style="margin-left: 40px;">D4: DE-A-100 05 685</p>			
<p>2. Novelty and inventive step</p> <p>D1 discloses a powdered inorganic filler with an organic coating and synthetic resinous compounds filled therewith, the filler being coated with 0.5-5 percent by weight of a fatty acid ester of a polyvalent alcohol (claims 1-4, 6). The inorganic filler is selected from the group of metal(hydr)oxides, metal carbonates, metal sulfates, metal sulfides, metal silicates, and silicate minerals (pages 5-6; claim 5). Fatty acid esters of polyvalent alcohols (claim 3; pages 6-7) are also among the preferred additives in the application (see claim 7). Example 1 describes the production of an ester-coated calcium carbonate by adding the fatty acid</p>			

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>ester to the initial solution of calcium hydroxide. The precipitation is carried out by introducing CO₂ gas into the initial solution.</p> <p>D2 describes fine particles of magnesium hydroxide that can be coated using an anionic surface-active agent (claims 1 and 8). The surface-active agents include, <i>inter alia</i>, modified fatty acid derivatives, alkali metal salts of fatty acids, and fatty acid esters of polyols (column 6, line 10). Examples 1 and 3 describe the production of coated Mg(OH)₂, the surface-active agent being added to the initial solutions and the precipitated product, with an average particle size of 0.7 µm, being separated from the solution by filtration (example 1).</p> <p>D3 relates to fine particles of silicic acid (20–800 µm) as a rubber additive with a high degree of dispersibility, the surface of the silicic acid being modified by inorganic, polyvalent ions (claim 1). The inorganic, polyvalent ions mentioned are polyphosphates (claim 4; see claim 7 of the application).</p> <p>Example 1 describes the production of a silicic acid coated with a polyphosphate, wherein sodium trimetaphosphate is added to the initial solutions.</p>

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>Consequently, the present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1-9 and 18-24 is neither novel nor inventive with respect to D1 to D3 within the meaning of PCT Article 33(2) and (3).</p> <p>3. The application does not contain any examples or comparative examples as evidence of the inventive step. It does not show that the presence of the second additive according to claims 10-14 results in any advantage over the methods or coated particles known from D1 to D3. Therefore, no inventive step within the meaning of PCT Article 33(3) can be acknowledged for claims 10-17 or 25-29.</p>

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box III

1. The current claims 1-4, 10 and 24-26 relate to an inordinately large number of possible methods and uses, of which only a small proportion are supported by the description (PCT Article 6) and/or can be regarded as having been disclosed in the application (PCT Article 5.1 (a)(v)). Terms used in claims 1 and 10 such as "fine inorganic solid particles", "dispersion agents or defloculation agents" or "organic additive" are formulated so broadly that they cover an innumerable number of possible fine inorganic solid particles and additives which are not defined more precisely or in greater detail until later in the subsequent subclaims 5-7 and 11. In the present case the claims lack the proper support and the application lacks the requisite disclosure to such an extent that it does not appear possible to carry out a meaningful search covering the entire range of protection sought.

The search was therefore directed to the parts of the claims that appear to be supported and disclosed in the above sense, namely the parts relating to the methods and uses according to claims 1, 10 and 24-26 in combination with the fine inorganic solid

Supplemental Box

particles in claims 5 and 6 and the additives in claims 7 and 11.

Consequently, only a partial search was conducted for claims 1-4, 11 and 24-26.

Pursuant to PCT Rule 66.1(e), the subject matter of the international preliminary examination is restricted to methods and uses based on the fine inorganic solid particles defined in claims 5 and 6 and the additives defined in claims 7 and 11.